

REMARKS

Reconsideration and further examination is respectfully requested. Claims 1-46 were previously withdrawn from consideration. Claim 68 has been added. Claims 47-68 are currently pending in this application. Claims 47-49, 52-54, 58, and 60-65 have been amended to more particularly point out the scope of the claims. These amendments are made without prejudice to pursue additional claims in a subsequent application.

Responding to the Examiner's Comments

In the Advisory Action mailed on 7/21/2009, the Examiner stated that modifications to claims 47, 58, and 62 changed the scope of the claims and therefore an updated search was required. In order for an updated search to be performed, Applicants are presenting newly amended independent claims 47, 58, and 62 to the Examiner in a Request for Continued Examination. Applicants respectfully request the Examiner perform an updated search on the newly amended independent claims 47, 58, 62, and all other claims presented herein.

In the Advisory Action, the Examiner further stated that “the communication relationship between the optical network unit and the distributed network is unclear because the structural relationship between the optical network, distributed routing network and plurality of subscribers is not claimed. It is unclear if a packet in an optical format is transported across an optical network or merely converted between multiple formats for communication with a distributed network.” Although Applicants believe that the structural relationship between the optical network, distributed network, and plurality of subscribers was properly claimed in light of the specification in previously presented independent claims 47, 58, and 62, in order to further prosecution, Applicants have amended independent claims 47, 58, and 62 to further define the structural relationship between the optical network, distributed network and plurality of

subscribers, and to further describe the operation of packetized information in an optical format and a second format.

Specifically, claims 47, 58 and 62 further describe the relationship between the host terminal distribution center, distributed routing network, optical network unit, network interface device, and subscriber unit. For example, claim 47 now states that at least one distribution point comprises the host digital terminal (HDT) distribution center and at least one access point comprises the optical network unit (ONU). See FIG. 9 and page 23, line 22 to page 24, line 2 of the specification for support of these modifications. Claim 47 further states that the distributed routing network is adapted to receive the high-speed packetized information from the host digital terminal distribution center in an optical formal and the optical network unit is adapted to receive the high-speed packetized information from the distributed routing network in an optical format. Furthermore, the network interface device (NID) is adapted to receive the packetized information from the optical network unit and the at least one of plurality of subscriber units is adapted to receive packetized information from the network information device in a second format. Given these modifications, Applicants argue that the communication relationship between the optical network unit and the distributed routing network is clear and the structural relationship between the distributed routing network, optical network unit, and subscriber unit is clearly defined. Therefore, claim 47 is in a condition for allowance. Applicants argue that since claims 48-57 are dependent upon claim 47, each of these claims are also in a condition for allowance.

Applicant has modified claim 53 to state that at least one of the subscriber units comprises a mobile device in communication with the at least one access point through a wireless connection. Support for this modification may be found in page 25, lines 5 – 11 of the specification and in FIG. 11, where a subscriber unit is described as connecting to an access

point using a high-speed wireless communication link. Given this modification to claim 53, Applicants argue that claim 53 is in a condition for allowance.

Applicant has modified claim 54 to state that at least one of the plurality of subscriber units comprises a device in communication with the network information device through a wired connection. Support for this modification may be found in FIG. 9 of the specification and page 9, lines 16-23 where information sources 32, 34, 36 and 38 are described. Given this modification to claim 54, Applicants argue that claim 54 is in a condition for allowance.

Independent claim 58 has been modified in a manner similar to independent claim 47. For example, in claim 58 the distributed routing network is described as adapted to receive the high-speed packetized information from the host digital terminal video distribution center, the optical network unit is adapted to receive the high-speed packetized information from the distributed routing network and the network information device is adapted to receive the high-speed packetized information from the optical network unit and forward it to at least one of the plurality of subscriber units. Therefore, like claim 47, the communication relationship between the optical network unit and the distributed routing network is clear and the structural relationship between the distributed routing network, optical network unit, and subscriber unit is clearly defined. Therefore, claim 58 is in a condition for allowance. Since claims 59-61 are dependent on claim 58, these claims are likewise in a condition for allowance.

Like independent claim 58, independent claim 62 has also been modified in a manner similar to independent claim 47. For example, claim 62 now provides for storing data at a distribution point comprising a host digital terminal distribution center and forwarding at least one of a plurality of high-speed information packets from the host digital terminal distribution center to a distributed routing network. The at least one of a plurality of high-speed information

packets is forwarded from the distributed routing network to an access point comprising an optical network unit. A network information device then forwards the at least one of a plurality of high-speed information packets to at least one of the plurality of subscriber units. Like claim 47, the communication relationship between the optical network unit and the distributed routing network is clear and the structural relationship between the distributed routing network, optical network unit, and subscriber unit is clearly defined. Therefore, claim 62 is in a condition for allowance. Since claims 63-67 are dependent upon claim 62, these claims are likewise in a condition for allowance.

New claim 68 states that at least one of the host digital terminal distribution center and optical network unit comprises a video distribution center adapted to receive a relay request between a video supplier and at least one of a customer gateway and one of the plurality of subscriber units. Support for new claim 68 may be found in the specification, page 24, lines 19-24. Applicants argue that claim 68 is also in a condition for allowance.

Recap of Prior Substantive Response

The following comments and arguments were originally submitted in the response to the non-final office action that was filed on March 18, 2009. As Examiner failed to address the comments and arguments in the Office Action issued April 29, 2009, Applicant re-submitted the comments and arguments as part of the Response after Final filed on June 29, 2009. Since the Examiner again failed to address the substantive portions of the comments and arguments presented below in the 7/21/2009 Advisory Action, Applicants are submitting the comments and argument now for the third time. Applicants respectfully request that the Examiner address the previously submitted comments and amendments that were directed at the prior rejections under

Sections 102 and 103, to the extent that a revised search presents the same art relied upon in the prior office action.

It is submitted that claims 47-67 more particularly point out aspects of the present invention that better distinguish the claims over the prior art of record than claims 10-46. Each of the independent claims 47, 58, and 62 are directed toward an information delivery system and/or method for the delivery of high-bandwidth information (e.g. video data) through a distributed network and by utilizing *more than one format* for the delivery of the data or information. For example, claim 47 specifies, *inter alia*, “a host digital terminal distribution center for converting the high-speed packetized information to an *optical format*” and an “optical network unit in communication with the distributed routing network and adapted to convert the packetized information *from the optical format to a second format*.” While the claims are not necessarily limited to any specific implementation, in practice, this allows the distribution of large volumes of data, such as that present in the distribution of video, through a hybrid communication path, and takes advantage of legacy type systems that may be present in legacy telecommunication delivery networks.

In one example, the first portion of the distribution path might comprise a fiber optic network extending from the distribution center to an intermediate access point between the subscriber and the distribution center. A second portion of the distribution path might comprise another type of transmission medium, such as copper wire, coaxial cable or another legacy medium found in the last mile of many data distribution systems up to and including many homes and other subscriber locations. The presently presented claims recognize that the optical format for each of these points in the distribution network are varied and takes advantage of an “optical network unit” in order to “convert the packetized information *from the optical format to*

a second format." Each of independent claims 47, 58 and 62 contain similar limitations and are similarly distinguishable over the prior art of record.

Claim Rejections 35 USC § 102 and 103

The only reference relied upon to support the Examiner's rejections in the April 4, 2008 office action under 35 USC § 102 is Ganz et al. (USPN 6,584,080). All other rejections are based on Ganz plus one or more combinations of prior art under 35 USC § 103. Based on the amendments made to the pending claims, Applicant submits that the rejections based on Ganz, alone or in combination with the other references, are now moot. The rejections under § 103 are also rendered moot by the presently presented claims. Ganz is directed specifically to radio communications repeaters used to access a common geographically distributed radio channel. Ganz does not describe the distribution of high-bandwidth data, such as video, through a network that converts the video data into an optical format and from the optical format to a second format for distribution to a subscriber. The Ganz system essentially contains the following elements: a host radio station, a plurality of wireless repeaters and an end user in communication with the distribution network formed by the host radio station and the plurality of wireless repeaters. Other aspects of Ganz relate specifically to the communications protocols used in the delivery of data over the distribution network and how the data might be routed through a particular set of repeaters.

Furthermore, the optical delivery and conversion systems and methods described in the present claims are not contemplated by Ganz. In fact, the Examiner has already conceded that Ganz does not describe the optical conversion aspects contemplated herein:

Ganz does not expressly disclose that the HDT converts the high-speed information packets to an optical format. April 4, 2008 office action at p. 14.

Likewise, the other prior art cited by the Examiner does not describe in any way, alone or in combination, the specific aspects of utilizing a host digital terminal distribution center for “*converting the high-speed packetized information to an optical format*” and an optical network unit in communication with the distributed routing network and adapted to “*convert the packetized information from the optical format to a second format.*”

For example, Fluss (USPN 6,304,578), is, like Ganz, directed toward an information packet routing scheme such that one or more routers queue the data packets, and assigns high transmittal priority to data packets addressed to users who have more recently received a previous data packet. In essence, Fluss is a prioritization system that recognizes which user might demand priority in accessing a particular network data resource. And while the examiner has previously relied on Fluss for the proposition that it discloses the conversion of data packets to an optical format for distribution over a high-transmission capacity optical network, Fluss only contemplates that this high-capacity network is extended all the way to an end user. Fluss does not describe a system where the information packets are converted from an optical format to a second format, such that the distribution system can take advantage of existing data distribution systems already in place within the “last mile” to a subscriber unit. Similarly, none of Lewis, Gulliford, Gallagher or the T.T. Lee article describe the specific combination that is embodied by the presently presented claims.

Claims 48-57, 59-61 and 63-67 are dependent upon independent claims 47, 58 and 62 and are likewise in condition for allowance.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully

requested that the Examiner telephone Shane Percival, Applicants' Attorney at 720-536-4906 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

September 29, 2009

/Shane Percival/

Dated

Shane Percival
Attorney/Agent for Applicant(s)
Reg. No. 61597

Shane Percival
NEUGEBOREN O'DOWD PC
1227 Spruce Street, Suite 200
Boulder, Colorado 80302
Tel: (720) 536-4900
Fax:(720)536-4910